

WHAT IS CLAIMED IS:

1. A hydraulic port weld stud, comprising:
a weld stud mounting body extending along a first axis, the mounting body including a weld boss portion and a fitting mount portion;
a cylindrical surface concentric about the first axis defined over an outer periphery the fitting mount portion;
a cylindrical cavity concentric about the first axis in the fitting mount portion;
a port fitting integral with the fitting mount portion of the weld stud body, extending along a second axis transverse to the first axis; and
a hydraulic port passage extending through the port fitting in fluid communication with the cylindrical cavity.
2. The hydraulic port weld stud of claim 1, wherein the weld stud mounting body defines a bore coaxial about the second axis, further comprising a melted braze ring in the bore integrally securing the port fitting as a separately formed component to the mounting body.
3. The hydraulic port weld stud of claim 2, wherein the melted braze ring provides a visual indication ring means for indicating a seal surrounding an outer periphery of the port fitting.
4. The hydraulic port weld stud of claim 1, wherein the mounting body is formed from a cylindrical stock material, wherein said cylindrical surface is an unfinished cylindrical surface of the cylindrical stock material.
5. A hydraulic port weld stud, comprising:
a mounting body extending along a first axis, the mounting body including a cylindrical weld boss portion and a cylindrical fitting mount portion, the cylindrical weld boss portion and the cylindrical fitting mount portion being unitarily formed as a single structural component;

a cylindrical surface concentric about the first axis, the cylindrical surface defined over an outer periphery of the fitting mount portion;

a cylindrical cavity concentric about the first axis formed in the fitting mount portion, the cylindrical cavity comprising a threaded portion and a non-threaded pilot portion, the non-threaded pilot portion extending partially through the cylindrical weld boss portion and being of a smaller diameter than the threaded portion;

a bore formed into the cylindrical fitting mount portion along an second axis transverse to the first axis;

a cylindrical threaded port fitting formed separately from the mounting body, the threaded port fitting being inserted into the bore and projecting axially therefrom along the second axis, the threaded port fitting defining a central passageway connected to the cylindrical cavity; and

a melted braze ring in the bore integrally securing the threaded port fitting to the mounting body.

6. The hydraulic port weld stud of claim 5, wherein the mounting body is formed from a cylindrical stock material, wherein said cylindrical surface is an unfinished cylindrical surface of the cylindrical stock material.

7. The hydraulic port weld stud of claim 6, wherein the cylindrical weld boss portion has an outer cylindrical periphery that is of a smaller diameter than said cylindrical surface.

8. The hydraulic port weld stud of claim 5, wherein the melted braze ring provides a visual indication ring means for indicating a seal surrounding an outer periphery of the threaded port fitting.

9. The hydraulic port weld stud of claim 5, wherein said threaded portion comprises female threads defined in said cylindrical cavity.

10. The hydraulic port weld stud of claim 5, wherein the cylindrical weld boss portion includes a planar welding face, further comprising a flux load insert secured to the cylindrical boss portion and projecting from a center of the planar welding face.

11. The hydraulic port weld stud of claim 5, wherein the second axis is perpendicular to the first axis.

12. A hydraulic port weld stud, comprising:
a mounting body extending along a first axis, the mounting body including a weld boss portion and a fitting mount portion, the weld boss portion and the fitting mount portion being unitarily formed as a single structural component;
a cylindrical cavity concentric about the first axis formed through the fitting mount portion;
a bore in the fitting mount portion extending along a second axis, the second axis being transverse to the first axis;
a threaded port fitting formed separately from the mounting body, the threaded port fitting being inserted into the bore and projecting axially therefrom along the second axis, the threaded port fitting defining a central passageway connected to the cylindrical cavity;
and
a melted braze ring in the bore integrally securing the threaded port fitting to the mounting body.

13. The hydraulic port weld stud of claim 12, wherein the melted braze ring provides a visual indication ring means for indicating a seal surrounding an outer periphery of the threaded port fitting.

14. The hydraulic port weld stud of claim 12, further comprising a cylindrical surface concentric about the first axis defined over an outer periphery of the fitting mount portion.

15. The hydraulic port weld stud of claim 12, further comprising a flux load inset secured to the mounting body.

16. The hydraulic weld port stud of claim 12, wherein the cylindrical cavity extends through an end of the threaded port fitting.

17. In combination, a hydraulic port weld stud and a hydraulic cylinder, the combination comprising:

the hydraulic cylinder comprising:

(a) a cylinder housing defining a piston chamber; and

(b) a piston linearly reciprocating within the piston chamber of the cylinder housing dividing the piston chamber into separate fluid chambers;

the hydraulic port weld stud mounted to cylinder proximate at least one end in fluid communication with one of the separate fluid chambers, the hydraulic port weld stud comprising:

(a) a mounting body extending along a first axis, the mounting body including a cylindrical weld boss portion welded to the cylinder housing and a cylindrical fitting mount portion;

(b) a cylindrical surface concentric about the first axis, the cylindrical surface defined over an outer periphery of the fitting mount portion;

(c) a cylindrical cavity concentric about the first axis formed through the fitting mount portion, the cylindrical cavity extending through the cylindrical weld boss portion and the cylinder housing to provide a fluid passageway extending from said one of the separate fluid chambers through the cylinder housing and the hydraulic port weld stud;

(d) a bore formed into the cylindrical fitting mount portion along a second axis transverse to the first axis;

(e) a cylindrical threaded port fitting formed separately from the mounting body, the threaded port fitting being inserted into the bore and projecting axially therefrom along the second axis, the threaded port fitting defining a central passageway connected to the cylindrical cavity; and

(f) a melted braze ring in the bore integrally securing the threaded port fitting to the mounting body.

18. The combination of claim 17, further comprising a plug mounted to the fitting mount portion enclosing an end of the cylindrical cavity.

19. The hydraulic port weld stud of claim 17, wherein the melted braze ring provides a visual indication ring means for indicating a seal surrounding an outer periphery of the threaded port fitting.

20. The hydraulic port weld stud of claim 17, wherein at least two of the hydraulic port weld studs are provided on the hydraulic cylinder, one for each of said separate fluid chambers.